



GREEN CHEMISTRY IN MASSACHUSETTS SCHOOLS

Green chemistry is a science-based approach to pollution prevention with established principles for eliminating the use or generation of hazardous substances in the design, manufacture, or application of chemical products. Successful green chemistry applications for manufacturing will alleviate the burdens associated with waste disposal and environmental regulatory compliance. It will also change the educational approach to teaching traditional chemistry, since a multidisciplinary approach is required to develop green chemistry solutions.

The Massachusetts Executive Office of Energy and Environmental Affairs is committed to supporting the Commonwealth's educators to encourage students to pursue careers in the science and engineering fields. The future challenges of maintaining a strong economy and healthy environment can be achieved only from the next generation learning about tools that promote sustainable practices. Green chemistry opens the imagination to an infinite set of possibilities with new product and process design – requiring technical training as well as emphasizing the importance of education in traditional chemistry and materials science.

The following list provides green chemistry activities that are available for your school:

1. General Seminars/Presentations: The principles and applications of green chemistry are presented to students through an interactive lecture and discussion led by Dr. John Warner and his students. This activity is appropriate for groups ranging from 10 to hundreds.
2. Hands-On Activities: The students are presented with a short introduction to green chemistry and then do hands-on experiments that illustrate the principles and applications of green chemistry. Led by Dr. John Warner and some of his students, this activity can take place either at the host school or at the University of Massachusetts – Lowell campus. This activity is appropriate for groups ranging from 10 to 20.
3. Teacher Workshops: Science teachers are presented with a short seminar discussing the principles and practices of green chemistry. Techniques of how to introduce and integrate concepts and hands-on components to existing class activities within the Massachusetts Frameworks are discussed. Led by Dr. John Warner, this activity can take place either at the host school or at the University of Massachusetts – Lowell campus. This activity is appropriate for groups ranging from 10 to 20 if a hand-on component is requested; otherwise any size group can be accommodated.

For more information on these programs, please contact Susan Lanza at OTA: 617-626-1068